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But EPA's position has always been that you need to look at five consecutive years of meteorologic data to give a more robust sampling of your meteorologic condition. If you just do a coupling with one year, it may be a good year or it may be a bad year, but it's unlikely that any one year is going to be representative. Where if you look at a five-year trend, you're more likely to come out with a more robust sample that is likely to be more reflective of predicting whether or not you're going to have future problems.

MR. PAINE: This is five years of meteorology you're talking about rather than five years of emissions?

MR. LONG: Correct. Correct. What we have recommended is that you take two years of emissions data, the most current two years, and you run that against five consecutive years of MET data. In this case both the State and EPA used the 1990 through '94 period for the meteorological data, but we allow any five consecutive years. It doesn't need to be contemporaneous with the emissions data.

MR. PAINE: I guess just to clarify, but the use of hourly emissions, would you still consider that to be a possible refinement of the

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peak to mean emissions characterization? Irrespective of the meteorological period, because there's obviously uncertainty, I think, in whether all of these plants are emitting 90 percent of their maximum simultaneously.

MR. LONG: Well, I mean, you can get that data, I mean, by having this CEM data available, we are able to actually determine that the 90th percentile was achieved on a couple of days, so that is. And I think that the State ran the data as we did and we both were using the same numbers. There was no disagreement on that. It's just what's the reasonable use of the data.

MR. PAINE: Okay. That's all I have.

MR. SCHWINDT: Anybody else?

I have one last question. Dick, on page 4 of your testimony, towards the very bottom of the page, in the last paragraph, you say, generally, increment consumption is determined by modeling the difference between the baseline emissions 1977 and emissions from the most recent two years for a given modeling period, i.e. 3-hour average, 24-hour annual average.

Isn't that contrary to the way that Congress set up the whole increment process? Didn't

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Congress specifically say that you need to establish a baseline concentration and then you look at increment consumption above that? Doesn't EPA's policy and process in this regard fly in the face of what Congress said?

MR. LONG: Fritz, I haven't reviewed the Congressional intent on this. I mean, once again, the problem is taking the statute and trying to work it into a workable policy and how you come out with something on this. All I can say is, I'll make sure that we address that in the May 15th comments, if you would like.

MR. SCHWINDT: Okay. Any other questions? Thank you, Mr. Long.

Next on the agenda we have the National Park Service and the Fish and Wildlife Service. Are the representatives from them here?

MR. BUNYAK: Good afternoon. My name is John Bunyak, and I'm with the National Park Service's Air Resources Division in Denver. I am also speaking on behalf of the U.S. Fish and Wildlife Service Air Quality Branch. Thank you for the opportunity to speak to you today. Also with me is John Notar of my office. I will provide some background information regarding our air quality

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concerns for Theodore Roosevelt National Park and Lostwood Wilderness Area in North Dakota, and Medicine Lake Wilderness in Montana. John Notar will then discuss the NPS and Fish and Wildlife Service technical comments regarding the North Dakota Department of Health's prevention of significant deterioration Class I increment analysis.

First, I'd like to summarize our role in the PSD review process. Under the PSD program, Theodore Roosevelt National Park, Lostwood Wilderness Area, and Medicine Lake Wilderness Area are designated as mandatory Class I areas and as such are afforded the greatest degree of air quality protection under the Clean Air Act. Furthermore, one of the purposes of the PSD program is to preserve, protect, and enhance the air quality in national parks, national wilderness areas, and other special areas. Consequently, the Clean Air Act provides the Federal Land Manager and the federal official charged with direct responsibility for managing Class I areas, for example, the park superintendent or refuge manager, the affirmative responsibility to protect the area's air quality related values, including visibility, from the

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adverse effects of air pollution. Both the National Park Service and Fish and Wildlife Service take this responsibility seriously.

The PSD program includes several tests, for which Class I areas, includes Class I increments and the adverse impact determination. The Class I increments represent the small amount of additional pollution that Congress thought, as a general rule, should be allowed in Class I areas. The Class I increments also represent the restriction on additional pollution which Congress thought necessary in most cases for protecting sensitive resources in Class I areas.

The adverse impact determination, however, provides the possible exception to the general rule that a proposed facility must not violate the Class I increment. The adverse impact determination is a site-specific test that examines whether a proposed facility will, in fact, unacceptably affect the AQRVs of a particular Class I area. If the FLM determines that a proposed facility will not adversely affect the Class I area, and so certifies, the permitting authority may authorize the facility even though the facility's emissions may cause or contribute to a violation of the Class I increments.

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Given previously modeled Class I increment violations at Theodore Roosevelt National Park and Lostwood Wilderness Area, the FLM for those areas did certify no adverse impacts for several projects proposed near the park and wilderness area in the early 1980s and '90s. I would like to emphasize that the Class I increment test is separate from the AQRV test, adverse impact test. Whereas the FLM has an affirmative responsibility to protect AQRVs at Class I areas, it is EPA and the State's responsibility to protect the Class I increments and to bring them into compliance when they are violated.

Nevertheless, the tests are related in that emission reductions obtained to correct a Class I increment violation will have a positive effect on Class I area AQRVs. For example, sulfur dioxide reductions obtained to correct Class I increment violations will have a corresponding reduction in visibility-impairing sulfate emissions. Furthermore, until Class I increment violations are corrected, new sources will still be required to obtain FLM certification of no adverse impacts before receiving a permit to construct.

It is also important to note that new

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information has been obtained and new impact assessment techniques have evolved since our first certification of no adverse impacts 20 years ago. Thus, one should not assume that because a source received a certification of no adverse impact in the past that future sources will receive the same determination. Consequently, it would benefit both the State and prospective sources for the State to correct any Class I increment violations as quickly as possible in order to enhance new source growth opportunities in the region.

I would now like to provide some general information regarding Theodore Roosevelt National Park, Lostwood Wilderness Area, and Medicine Lake Wilderness Area. These are unique and special places. They are of national importance and were set aside for the enjoyment of future generations.

As you've heard earlier, Theodore Roosevelt National Park consists of three separate units, the North Unit, Elkhorn Ranch, and the South, in western North Dakota, and encompasses natural, scenic, and historical resources. The Little Missouri River winds through the North and South Units and forms the eastern boundary of the Elkhorn Ranch Unit.

Efforts to establish a park in the North

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Dakota Badlands were initiated as early as 1917, but Theodore Roosevelt Memorial National Park was officially established in 1947 as a memorial to honor Theodore Roosevelt. The park name was eventually changed to Theodore Roosevelt National Park in 1978. The three units of the park comprise 70,447 acres, of which approximately 42% has been designated as wilderness.

Theodore Roosevelt National Park is managed to protect and interpret the Badlands ecosystems surrounding the Little Missouri River and the cultural resources resulting from human habitation of the area. Maintenance and restoration of the natural environment, including physical and biological resources and ecosystem processes, is a critical management objective. Natural processes will be permitted to continue with a minimum amount of human disturbance. An additional objective is to protect and interpret human history, with emphasis on Theodore Roosevelt, President Theodore Roosevelt.

Air quality related values of Theodore Roosevelt National Park include visibility, vegetation, wildlife, soils, and water quality. In 1985, the Department of the Interior certified existing visibility impairment at Theodore Roosevelt

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National Park and many other units administered by the NPS. This impairment was due to visibility degrading uniform haze. DOI reaffirmed its finding of existing visibility impairment in 1997 when EPA proposed revisions to the visibility protection program. Dry deposition monitoring at Theodore Roosevelt National Park indicates that ambient particulate sulfate concentrations have increased slightly from 1998 to 2001, an indicator that visibility conditions at the park may be getting worse. Both the National Park Service and the Fish and Wildlife Service continue to work with EPA and states to return visibility in our Class I areas to natural conditions and to meet the national visibility goal of no human-caused impairment.

There are currently no known air pollution threats to aquatic resources in Theodore Roosevelt National Park. This is primarily due to the high buffering capacity of soils in and around the park and resulting high concentrations of base cations and acid neutralizing capacity in surface waters. There are also currently no known air pollution threats to terrestrial resources in Theodore Roosevelt National Park. However, wet deposition monitoring data suggests a trend toward increasing

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nitrate deposition at Theodore Roosevelt National Park.

Lostwood National Wildlife Refuge was established in 1935 to provide refuge and breeding grounds for migratory birds and other wildlife. The refuge contains 26,904 acres of rolling grasslands, with limitless vistas and over 4,000 prairie wetlands of all types and sizes. The area supports a large variety of wildlife and is especially suited for waterfowl and other dependent -- and water-dependent birds, such as ducks, rails, phalaropes, avocets, and godwits. The endangered piping plover is also found at Lostwood. In 1975, Congress designated 5,777 acres of the northern section of Lostwood National Wildlife Refuge as a wilderness area, declaring that the area should remain undeveloped and unimpaired for future generations. Trails throughout the wilderness area are used for hiking, snowshoeing, and cross-country skiing.

Air quality related values of Lostwood Wilderness include vegetation, wildlife, soils, water quality, and visibility. Little information is available on air pollution impacts at Lostwood, but in 1987 DOI expanded its 1985 list of

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visibility-impaired areas to include Lostwood Wilderness and other areas administered by the Fish and Wildlife Service. To better quantify visibility impacts at Lostwood, the Fish and Wildlife Service has started monitoring visibility conditions within the refuge as part of the Interagency Monitoring of Protected Visual Environments, or IMPROVE program. In addition, Fish and Wildlife Service has studied some of the wetlands and lakes within Lostwood to determine if they are affected by acidic deposition from certain emissions, including sulfur dioxide and nitrogen oxides. Studies conducted in the late 1980s indicated that wetland water chemistry did not appear to be affected by acidic deposition. These wetlands are generally well-buffered because of the calcium-rich soils in the area. Snowpack samples for just one year, 1989, were also analyzed and found to be within an acceptable pH range of 5.85 to 6.30. However, it has been found that in some areas, initial snowmelt releases a pulse of acids which concentrate at the bottom of the snow column. For example, at the Cottonwood Lake Study area in south central North Dakota, initial snowmelt in early April 1979 had a pH from 4.1 to 5.8. A pulse of acidic snowmelt could be significant in early

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spring when frozen sediments reduce the interaction of the soil with surface water. Invertebrates that overwinter as eggs in Lostwood wetlands could be vulnerable to this episodic acidification.

Studies should be conducted to update the baseline work done in the late 1980s on wetland, rain and snowpack chemistry. In addition, a study should be done to evaluate the impact of initial snowmelt on invertebrate populations, which are an essential food source for birds in Lostwood National Wildlife Refuge.

Medicine Lake National Wildlife Refuge was established in 1935 to provide refuge and breeding grounds for migratory birds and other wildlife. The refuge contains 31,467 acres of marshes, native grasslands, and shrublands that provide nesting areas for a myriad of waterfowl, shorebirds, and small songbirds. The refuge is also an important flyway migration stop for far north nesters, such as whooping cranes, sandhill cranes, tundra swans, and boreal forest nesting warblers. In 1975, Congress designated 11,366 acres of the Medicine Lake National Wildlife Refuge as a wilderness area, declaring that the area should remain undeveloped and unimpaired for future generations.

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Air quality related values of Medicine Lake Wilderness include vegetation, wildlife, soils, water quality, and visibility. Little information is available on air pollution impacts at Medicine Lake, but DOI did include Medicine Lake Wilderness in its expanded list of visibility-impaired areas. As at Lostwood, to better quantify visibility impacts at Medicine Lake, the Fish and Wildlife Service has started monitoring visibility conditions within the refuge as part of the IMPROVE program.

In closing, the Fish and Wildlife Service and National Park Service have programs underway to better understand air pollution causes and effects at Lostwood, Medicine Lake, and Theodore Roosevelt National Park. In addition, the Fish and Wildlife Service and National Park Service hope to work cooperatively with industry and the State of North Dakota to reduce air pollutant emissions and to protect the air quality and air quality related values of these areas. If Lostwood, Medicine Lake, and Theodore Roosevelt are not protected, unique wildlife and scenic values will be threatened or even lost. The Fish and Wildlife Service and National Park Service, with your help, hope to preserve and protect these special areas for the

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enjoyment of future generations.

This concludes my statement, and now I would like to turn it over to John Notar for his technical comments. Then we would be happy to answer any questions you have. Thank you.

MR. SCHWINDT: Thank you.

MR. NOTAR: Good afternoon. I'm John Notar, a meteorologist with the National Park Service in Denver. I'm also here representing Fish and Wildlife Services, also located in Denver.

Thank you for the opportunity today to speak to you regarding these issues and the North Dakota scope of this hearing, and also comments on the draft Calpuff analysis of the current PSD Class I increment consumption in North Dakota and eastern Montana using actual annual average SO2 emission rates.

The Calpuff analysis document and other supporting documents describe the methodology the State is presently applying to address SO2 increments at Teddy Roosevelt National Park, Lostwood Wilderness Area, and Medicine Lake Wilderness Area.

National Park Service and Fish and Wildlife Service have reviewed the latest Calpuff analysis

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performed by North Dakota, and it is our opinion that, for the most part, the model, the Calpuff model and the Calmet model, were executed not exactly following the recommendations found in the EPA guidance documents, IWAQM, that's Interagency Work Group on Air Quality Modeling, December 1998. There were several instances where you did deviate from the guidance in this document. In the Calmet model there were some instances where in order to get a -- try to get a better representation of the meteorological field there were some options that I'm not saying they were incorrect, but they need further investigation. This is regarding the mixing heights and the dampening of surface influence of meteorological stations into the upper mixing levels. I have never run into that before and we would need to investigate that further before going on with any kind of recommendation on that.

Another instance as a deviation from the Calpuff model is the use of an alternative dispersion coefficient technique. The EPA has proposed to use a Pasquill-Gifford dispersion coefficient. This describes the dispersion of pollutants in the atmosphere, the rate at which they are dispersed. North Dakota employed and set a

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different, called a similarity theory option, to describe the dispersion of the air pollutants. Now, this has not been -- when EPA proposed Calpuff as a guideline model, they proposed it using the Pasquill-Gifford dispersion coefficients and not the similarity theory that North Dakota did use. I did a little testing on my own last week and the option that North Dakota uses does give you lower concentrations in the short-term for most periods, most averaging periods.

That said, we have three -- National Park Service and Fish and Wildlife Service has three major concerns regarding the analysis performed by the State of North Dakota. One, is the use of annual average emissions to determine -- to model short-term increments, the 3-hour and the 24-hour increments. The method to determine the Class I increment consumption expansion after minor source baseline date December 19th, 1977, better known and described here as the MAAL, and then the post processing of the concentrations by averaging the concentrations over all the receptors at each individual Class I area. These are three inconsistencies with EPA model guidelines and recommendations.

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The concern of these issues is they are inconsistent with the Appendix W 40 CFR, Part 51, guidelines on air quality models Code of Federal Regulations, and this is commonly known as the guidelines on air quality model. It's a regulatory document that Clean Air requires EPA to revise every three years, and this is the process right now that Calpuff is in, trying to be approved. As you know right now, Calpuff is not the approved long-range transport model. Mesopuff is.

These three concerns, like I said, the averaging of the annual emissions, the post processing of averaging receptors in the MAAL concept, are also not -- are also inconsistent with the New Source Review Workshop Manual, prevention of significant deterioration and nonpayment permit. The NSR Workshop Manual describes the methods and data, not the models themselves, on how to perform air quality analysis for PSD purposes and new source permit and national ambient air quality standards.

I'd like to address the idea that people think they can model for baseline concentrations. It's been my -- it's been my experience that this has never been done before in the country. Now, PSD has been going on for approximately 25 years, and I

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did some checking around and I would actually ask the State of North Dakota to provide one example where baseline concentrations have been determined by model. Normally the way it's done is that after a minor source baseline, in this case December 19th, 1977, you model the expansion; that is, the negative emissions from existing -- well, in this case mostly power plants -- existing sources from the baseline data. If they are decreasing emissions, those are negative emissions, and then any new sources coming are in positive emissions, and this is the way it's been done nationwide for the last 25 years.

As far as I can tell, there's no example of anybody ever trying to model conditions and establishing a baseline concentration. A baseline date is one thing, it's your model source baseline date, December 19th, 1977, but, really, a baseline concentration is more of a lawyer's-type concept. What you would have to do is, you would have to go back and collect data from 1976 and 1977, meteorological data, and you'd also have to make sure you had hourly emission rate data from all the sources that were considered in the baseline, and then you would have to do the model with the 1976, 1977 meteorological data and compare the emissions

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and the meteorological data up in time and space and that is a very hard job to do and it has not been done here.

We believe that the MAAL concept artificially provides a larger expansion of the increment than what's really allowed. If you look, states proposing to use -- excuse me. They are proposing to use, and I think it's day 341 as our high second high, and then set the Class I increment available for five more micrograms up to their MAAL high second prediction. If you look back and apply this concept to, say, day 11, that allows actually 14 micrograms to be put in the Class I area, seriously almost three times over the Class I increment. So this concept here is definitely flawed. I would actually propose what the EPA showed earlier in the day where it was actually almost like a reversal is much more the concept that needs to be applied.

Okay. I think -- let's talk about the emissions. What you're supposed to do when you're modeling for short-term increment; that is, in this case for the 3-hour and 24-hour, you're really supposed to be using the short-term emissions from the last two years, and this is based off a rolling

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average of 3-hour and 24-hour average. Not supposed to be using an annual average to address a short-term increment, say, 3-hour, 24-hour. The only time your annual average, which was used, would be allowable is if you are looking at the annual increment and that's not being looked at in this case. So you really should be using a rolling average for the highest 3-hour and 24-hour period during the last two years. And this can be referenced in Appendix W, Part 51, Table -- since I heard everybody else talking about this -- it's Table 9.2. So it is the Park Service and Fish and Wildlife Services' contention that using annual averages is incorrect, and to use a rolling average of the highest 3-hour and 24-hour as measured from CEM data for the last two years.

And then the concept of averaging concentrations from all receptors over a Class I area, either for Class I, Class II or even the max has never been done anywhere in the Clean Air Act and is nowhere supported in EPA regulatory or guidance documents or policy statements. All that is needed to do is to add a few -- and this was also pointed out earlier today -- is add a few receptors in locations not receiving a high impact and the

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average goes down over the whole Class I area. This is clearly an unacceptable concept of averaging receptors over a large area. If you were doing this for health standards, you would have large areas of the country that were not attaining health standards.

And in a sense what an increment is, when you're violating a Class I increment, essentially you're violating the standards to protect the most sensitive species in these wilderness areas. So we're very concerned also that the receptor coverage that was used by the State is very inadequate. They were using only approximately five-by-five -- a receptor every five kilometers. And when you have oil and gas wells that are very near where the park is, say these little dots here represent some of the oil and gas wells, you can get some very high concentrations near the borders and within the park and I just kind of drew these here as different isoflecks. By the time you'd even get out to receptor 4, the concentrations -- they drop off as you go downwind. The concentrations would be very, very diluted as opposed to what we would be seeing here.

What the Fish and Wildlife Service and Park

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Service is recommending is that we go with a -- the State goes with a two-by-two kilometer grid over each Class I area. I have processed well over 100 major source permits in the last several years for the Park Service and this is a receptor grid network that there's actually several consultants here in the audience that have applied a two-by-two kilometer grid over Class I areas that they have modeled for other sources and other parks in the country.

Now, with that, I guess I'd like to address shortly the scope of hearing questions that were outlined in the notice of the hearing. First issue basically, the Department specifically solicits comments on technical assessment and proposed determination of applicable PSD increments, et cetera. Park Service and Fish and Wildlife Service do not consider the State's technical assessment adequate to protect the deterioration of the short-term list of two Class I increments at the three Class I areas of Theodore Roosevelt National Park, Lostwood Wilderness Area, and Medicine Lake Wilderness Area, just for the reasons I outlined earlier.

Baseline concentrations for both the 3-hour

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and 24-hour are incorrectly determined by using the MAAL. The average annual -- using the average annual SO2 emission rates for short-term increment is incorrect and they need to use the rolling highest 3-hour, 24-hour average and, again, as I just pointed out, averaging of the receptors clearly underestimates the high second high impact that will be seen in these Class I areas.

Number 1, in addition to the above assessment, the Department proposes to consider preliminary modeling analyses prepared previously in 1999 by the State or EPA's 2002 report. I have not looked at the 1999 State analysis in detail, but I understand that it did much more follow the approach that I have outlined earlier. They were short on the number of receptors. It was still like, I believe, a five-by-five kilometer receptor back then, but at least they didn't use the annual averages, and small concept also was not applied. We believe that, like I said, the 49 receptors even in 1999 is not adequate and we need basically a two-by-two kilometer constructed grid.

The second issue, North Dakota proposes to recognize Class I variances granted by the Department of Interior for North Dakota assessing

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Class I increment consumption. Park Service and Fish and Wildlife Service defer to EPA on this PSD applicability issue.

Number 3, the Department proposes to utilize annual actual -- actual annual sulfur dioxide emissions for all major and minor stationary sources for calculating PSD baseline concentrations and PSD increment consumption. As I pointed out earlier, annual averages are not acceptable. You need to use a short-term 3-hour and 24-hour averages.

Number 4, the Department proposes to measure consumption of PSD increment in Class I areas based on the ambient concentration of sulfur dioxide caused by baseline sources. Well, this is clearly undoable. You would have to have -- first of all, there isn't a monitor smart enough that knows if the sulfur dioxide molecule is coming out of an old source or a new source, so it's clearly impossible to do any kind of monitoring to address any kind of increment issue.

Number 5, the Department proposes to establish baseline concentrations for sources in existence on the minor source baseline date using actual emissions, but proposes to adjust the

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baseline concentration of any source whose emissions in the prior two years to the baseline do not represent normal operating conditions. National Park Service and Fish and Wildlife Service believes that the changes in such emissions since the minor source baseline date or changes after January 6, 1975 at existing major sources, rather than the absolute magnitude of these emissions is a concern since this changes what might affect PSD. Basically, we don't allow for baseline concentration. You start counting once either a major source after 1975 starts increasing emissions or decreasing and then you start adding or subtracting any source after the minor source baseline date, in this case, December 19th, 1977.

And issue Number 6, because the Department has issued PSD and construction permits prior to the Fort Peck Indian Tribe redesignation to Class I, the National Park Service and the Fish and Wildlife Service defer judgment on this increment applicability issue to EPA. Thank you.

MR. SCHWINDT: Thank you.

MR. BAHR: Sir, do you have your testimony in writing that we could get a copy of?

MR. NOTAR: No. Kind of messy, but I will

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get it to you before the 15th.

MR. BAHR: Thank you very much.

MR. NOTAR: Anybody have any questions?

MR. SCHWINDT: Yes, I do, a couple questions. One, I guess it troubles me that it seems like the Clean Air Act calls for establishing a baseline concentration and then adding an increment to that and what you are suggesting is that that can't be done so we can't -- we just ignore that requirement in the Clean Air Act?

MR. NOTAR: Physically you could do it, but, like I said, you would have to go back to 1976 and '77, get the meteorological data that covers all the 96 precip stations, 25 air stations, 24 upper air stations, whatever, recreate that meteorological wind field, recreate the hourly emissions that these old sources out there were putting out. I wouldn't ask that of anybody. That's a herculean task beyond anybody's -- you know, it's ridiculous. What is accepted and what has been done nationwide since 1977, is that people draw the line in the sand, this is your minor source baseline date, in this case December 19, '77, and then they start adding up the increases, subtracting the decreases and that is your base, that is your increment consumption from

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that point on.

MR. BUNYAK: I think the concept of the baseline concentration is there to set the starting point from which you calculate the increment. You don't really need to know what that level is. You just need to know the increases and decreases from that level to evaluate whether the increment has been consumed or not. They talk about baseline concentration and what's included in the baseline concentration and what's not included in the baseline concentration, but you don't really need to know what the absolute value of that concentration is because we're only interested in the incremental change from that level.

MR. SCHWINDT: Have you looked at the legal memo that the State has prepared then as part of the record?

MR. BUNYAK: I have not.

MR. SCHWINDT: Okay. Is it possible for you and your staff, legal staff to take a look at that and provide any legal thoughts that you might have on that?

MR. BUNYAK: Yeah. We will. We intended to do that by the May 15th date. We didn't have enough opportunity to do that beforehand.

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MR. SCHWINDT: That would be good. A couple other questions that you -- you indicated that the increment was there to protect the most sensitive species. How did you arrive at that conclusion?

MR. BUNYAK: Well, I guess we need to clarify that a little bit. There are two separate, distinct tests, as I mentioned in my testimony, the increment test and the AQRV test.

MR. SCHWINDT: Right.

MR. BUNYAK: And Congress initially established as the platform the level that was generally accepted to protect the resources, but there are opportunities there to go through this certification of no adverse impact process, so it's kind of the initial flag, so to speak, if it's increment-violated, then you need to do further analysis. It's not an effect-based level directly, but it's a level that if you're above it, then it warrants further analysis.

MR. SCHWINDT: Okay. Then in your testimony you indicated that ambient particulate sulfate concentrations have increased slightly from 1998 to 2000 and indicated that visibility conditions at the park may be getting worse. Is

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that all of the data that you have on sulfate particulate matter?

MR. BUNYAK: We have data that goes back further for different years, but I just looked at the last couple years. That's the most recent data that we have analyzed. I think we are trying to gather more information, as I said, and the Fish and Wildlife Service is trying to -- is going to be putting in a crew to monitor those at Lostwood and at Medicine Lake Wilderness, so we are trying to gather more information.

MR. SCHWINDT: Okay. Then in the fourth paragraph, on page 3, you talked about studies should be conducted to update the baseline work done in the 1980s on wetland, rain and snowpack chemistry. Are you planning on doing those in the near future?

MR. BUNYAK: Well, we're looking for some partners to help us gather the information. We're limited. Our budget doesn't permit us to do that right now, but we are trying to identify things that need to be done and then we're going to try to go out and try to get some people to help us make that happen.

MR. SCHWINDT: Okay. Anybody else have any

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questions? Lyle.

MR. WITHAM: Yeah. Mr. Notar, I need to -- this is Lyle Witham, Assistant Attorney General. I don't quite understand your statement in terms of your idea that you have to pair the '76-77 meteorology with the '76-77 emissions data to establish a baseline data; is that what you're saying?

MR. NOTAR: No, to establish a baseline concentration.

MR. WITHAM: Baseline concentration. I misspoke.

MR. SCHWINDT: Could you use the microphone, please?

MR. NOTAR: Yes, to establish -- you need that to establish baseline concentration.

MR. WITHAM: You're saying that -- you're saying that you have to pair -- I just want to be clear on this. You have to pair the actual meteorology for those two years with the actual emissions data for those two years in order to establish a baseline concentration for both groups; is that what you're saying?

MR. NOTAR: That's what you should try to do, yes.

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MR. WITHAM: Okay. Why isn't that the case then for determining increment consumption?

MR. NOTAR: Because you can have variable meteorological conditions any given day. I mean, look at today, it's snowing, May 5th, May 6th, softball season. Normally, it's not going to snow, but if you're going to model them, you have to predict out, you have to project into the future. You have to assume that it's possible it can snow on May 6th.

MR. WITHAM: So why isn't that same argument true for establishing the baseline concentration then? What's the difference?

MR. NOTAR: I don't think you have enough information. I didn't say it's impossible, but I don't think there's enough information available for anybody to do a decent job of doing it right now. It's been 25 years.

MR. WITHAM: That doesn't answer my question. What is the difference? Why do you have to pair them for establishing the baseline concentration and not for establishing increment consumption? What is the difference?

MR. NOTAR: I guess I just don't understand your question.

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MR. WITHAM: What is the policy reason why you would do it one way for establishing baseline concentration and another way for determining increment consumption? What is the policy reason?

MR. NOTAR: The increment consumption is based on the highest second highest impact at a receptor.

MR. WITHAM: And why isn't that true for baseline concentration? Why isn't it the highest second highest concentration in the baseline period? Isn't that, in fact, what the rule was at the time that Congress passed the law? Wasn't that what they said, is short-term baseline concentration was the highest second highest concentration? Isn't that what the law was at that time?

MR. NOTAR: Right.

MR. WITHAM: And wasn't that also the law in the first rules enacted by EPA after the Clean Air Act was established in 1977? Wasn't that still the rule?

MR. NOTAR: Sure.

MR. WITHAM: And isn't that exactly what the Department is doing with the MAAL concept?

MR. NOTAR: No.

MR. WITHAM: Why not?

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MR. NOTAR: Because you're allowing -- like I pointed out earlier, that on a given day you could be increasing pollution, say, up to 14 micrograms on a certain day in a Class I area.

MR. WITHAM: Okay. Show me that --

MR. NOTAR: And it should only really be going up on day 11 assuming that -- should only be going up five micrograms over any given day.

MR. WITHAM: Where in the law does it say that? Can you cite me the rule or the statute that says that?

MR. BUNYAK: Well, the increment is the 24-hour average concentration and so that's any day. So any day of the year you should meet that --

MR. WITHAM: Twenty-five -- five over the baseline concentration, isn't that what the statute says? Five over the baseline concentration; isn't that what the statute says?

MR. BUNYAK: Yes.

MR. WITHAM: Isn't that what the Department is doing with the MAAL?

MR. NOTAR: The MAAL is only good for two days, good for day 341 and then whatever, day 221 or something like that. Yeah, day 221.

MR. WITHAM: You're the one that said in

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your testimony, Mr. Notar, that the monitor out in the park cannot tell the difference between an increment-consuming emission and a baseline -- a baseline sulfur dioxide molecule and a background sulfur dioxide molecule.

MR. NOTAR: That's correct. That's why you have to -- that is correct. That's why modeling is the only way really to assess increment consumption.

MR. WITHAM: Okay.

MR. NOTAR: You have to model. You cannot -- you don't have millions of monitors. You can literally put a million receptors out there.

MR. WITHAM: And why can't you also do that with modeling?

MR. NOTAR: That's what I'm saying. You can put a million receptors. A receptor is a monitoring point. A monitor is a little, physical machine that samples the atmosphere. The State doesn't have enough money to put enough monitors out there. I would not ask them to do that.

MR. BUNYAK: Even if you did stick a monitor everywhere, the fundamental point is that you can't make a distinction between an increment SO2 molecule and a baseline, so that's why they have the model to help us to do that. I guess I'm a

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little bit confused. Maybe somebody can enlighten me as to why given the fact that you're looking at an increment level, why is there a need to determine what the baseline concentration is? The increments are the levels above a certain level.

MR. NOTAR: An increase after the minor source baseline, that's all that needs to be determined.

MR. WITHAM: Let me ask my question. Can that extensive flora or fauna out in the park tell the difference between an SO2 molecule from an increment-consuming source and a baseline source?

MR. BUNYAK: No, that's why there are two separate tests. You have the AQRV test and you have the increment test.

MR. WITHAM: So if you're going to determine whether the worst-case air quality levels are deteriorating, the worst-case 3-hour and 24 hours, don't you have to look at the maximum worst-case 3-hour and 24 at the baseline period and compare that to the worst case at the present level; is that --

MR. NOTAR: That's why you need to be using the worst-case emission rates, too, not the annual average.

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MR. BUNYAK: Well, I guess to answer your question, it depends on what you're trying to determine. If you're trying to determine whether an increment is being violated, then you need to look at just the incremental changes. If you're looking what the net effect on a sensitive resource is, then you want to know what the total concentration is. You're right, a sensitive species doesn't really care what the incremental level is. They're worried about or they're concerned about ecological effects from the total deposition loading or the total SO2 concentration. That's why there are two separate -- there are two separate tests. You know, you've got the increment test and you've got the AQRV test. The AQRV test is concerned about the total concentration; whereas the increment test is looking at the incremental changes from the baseline concentration.

MR. WITHAM: So you would agree that the Department could use a different methodology for determining increment compliance as compared to looking at air quality related values?

MR. BUNYAK: Yes, there are two separate tests.

MR. WITHAM: And the Department could adopt

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the policy that does that?

MR. BUNYAK: Well, I guess it depends on what the policy is. I can't prejudge what I don't know, but, you know, as I said, the sensitive water species, sensitive species are going to be concerned about the total concentration, and when we make this adverse impact determination, we need to know what the total concentrations are, as well as what the incremental change from the proposed new source is. In other words, for us to determine whether that new source is going to cause or contribute to an adverse effect.

When we do our adverse impact determination, we look at the global situation. We look at the existing concentration. We look at the existing sensitivity of the species. We look at the current conditions. We look at the incremental change from the new source before we decide whether we're going to certify that that new source would not cause or contribute to an adverse impact.

MR. WITHAM: Are you aware of the levels of SO2 that were present at the park at the time that the -- and the wilderness area at the time that the variances were granted in 1982?

MR. BUNYAK: They were fairly low. That's

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why --

MR. WITHAM: Hasn't the evidence been presented here showing that the highest monitored concentrations ever recorded in the park occurred in 1982?

MR. BUNYAK: I'd have to go back and look at the data. I don't have that information in front of me, but, as I said, we certified no adverse impact in 1982. My testimony talks about the fact that we don't -- there aren't any known effects with respect to sensitive species. If I was a new source, I'd be more concerned about the visibility impacts for the Class I areas, given the fact that the Park Service has already certified visibility impairment at Theodore Roosevelt, and Fish and Wildlife Service has subsequently certified impairment at Lostwood and Medicine Lake. So I wouldn't be as concerned if I was a new SO2 source about the SO2 concentration from an effect stand-point on the resources. I'd be more concerned about the visibility impairment issue.

MR. WITHAM: On visibility should the Park Service adopt a one-size-fits-all concept for visibility?

MR. BUNYAK: We don't. That's why we look

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at each source individually and before we certify no adverse impact we want to know what the consequences of that new source would be. We don't have a blanket certification no-adverse-impact letter that we send out to everybody. We do a case-by-case analysis. We have established guidelines that we provided to applicants in which case we describe the process and the methodology to assess the impacts, but when it comes down to making a decision whether that impact is adverse or not, it's case by case, considering magnitude, frequency, duration, what the current conditions are, and so forth.

MR. WITHAM: Do you know of any changed conditions in the park that would result in a different determination now based upon these same concentration levels of no adverse impact as compared to when those determinations were made in 1993 and 1982 and 1985?

MR. BUNYAK: That probably the biggest change would be the visibility conditions. As I said earlier, the SO2 concentrations, we don't have any identified problems with respect to soils and vegetation. Visibility, 1982 -- as I said, the last 20 years, a lot has evolved with respect to the modeling methodology and guidance. The IWAQM

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guideline came out in April of 1993.

MR. NOTAR: Actually, the last waiver was March, 1993. EPA published IWAQM Phase 1 in April of 1993. So prior to IWAQM there really wasn't an accepted way to assess visibility impacts, especially in the long range in terms of regional haze. So you have not received a waiver since there's been an EPA-approved method to assess regional haze in the far field.

MR. BUNYAK: Just to add on to that, the IWAQM Phase 2 guidelines has evolved and the Federal Land Managers also have published a document called the Federal Land Managers Air Quality Related Values Work Group, which was the three federal land manager agencies, which consist of the National Park Service, the Fish and Wildlife Service and the Forest Service, got together and tried to address some of the criticisms that we received from applicants and state agencies about being inconsistent on how you treat your new source applicant. So we got together and came up with some consistent guidance that we provide to applicants and states to show the types of analyses we expect to see in applications. And one of the -- probably the significant differences between the FLAG

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guidance and what was done prior to that was the fact that we use the natural background as a visibility baseline to calculate the change.

MR. WITHAM: Would you explain the concept of natural background?

MR. BUNYAK: Well, as I say in my testimony, that the national visibility goal was no man-made impairment. EPA came out with their regional haze rule in 1999 to try to put states on track to reach no man-made impairment and comply with the national visibility goal by 2060 or something like that. So in order to assess the effects of new sources, we developed the national background concept as kind of the starting point or the baseline to evaluate the change of new sources and try to determine how much of a change would be significant from a new source standpoint.

So based on the best information we had at the time, which was an APAC report in 1990, we tentatively came up with some -- our best guess or our best information on what the natural conditions are for each Class I area, with the understanding that the EPA as they develop the regional haze rule and as it's been implemented, they're going to be establishing what the natural conditions are, at

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which time the FLAG group would defer to the EPA numbers and use those in future analyses.

MR. WITHAM: One further question. What -- would you explain the concept of a negative emission?

MR. NOTAR: It's actually an emission decrease. That's when a source would actually put on controls and decrease their emissions.

MR. WITHAM: Is it only when they put on controls?

MR. NOTAR: No, they may be switching to lower sulfur fuel, which would decrease emissions.

MR. BUNYAK: Basically, it's an increment-expanding source. So your source shuts down or relocates or changes process or whatever it does to reduce emissions, and it --

MR. NOTAR: Stands increment to make available more growth in the area.

MR. WITHAM: On a day-to-day basis, correct?

MR. NOTAR: On a short-term basis or on an annual basis. There is an annual increment also.

MR. WITHAM: And it's not based upon a worst-case baseline concentration?

MR. NOTAR: If you can define a worst-case

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baseline concentration, I'll --

MR. WITHAM: It was defined in the rules that were in effect at the time Congress passed the law and after they passed the law and as Congress understood it when it was passed.

MR. NOTAR: Well, like I said --

MR. WITHAM: It was the second highest.

MR. NOTAR: If I could read an analysis where somebody has done modeling for a baseline concentration somewhere in the last 25 years, somewhere in this country, then maybe I'll have a better understanding.

MR. BUNYAK: Well, I don't think you need to make a distinction between worst case and best case. An increment -- a reduction in emissions is a reduction in emissions, regardless when it occurs. So if you have reduced emissions, it will occur on the worst day. It will occur on the best day. To me, it expands increment throughout the whole domain and every day of the year. If it's a source that shuts down, it's going to have a positive effect on the worst days as well as the best days. I don't think we need to make a distinction.

MR. WITHAM: Doesn't the weather affect a particular point in the park as its model depends on

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whether it's there concurrently with emissions from another source?

MR. BUNYAK: Well, that would come out when you do the modeling and model all the sources together. You would model the increment-consuming source and you would model the increment-expanding sources, and the net effect is whatever it is on best days and the good days. I guess I'm confused why you are making a distinction between an increment-expansion source on the worst day versus a different day, because the model is going to model all 365 days and whatever it is, it is.

MR. SCHWINDT: Any other questions?

MR. MENNELL: This is Jim Mennell again. I have just one question for Mr. Notar. You've identified some deficiencies in the State's modeling. But also at issue in this proceeding under item 1 of the notice of hearing is EPA's draft modeling. In your opinion, are there any deficiencies in EPA's draft model and, if so, what are those deficiencies?

MR. NOTAR: Yes. I would prefer EPA use the same emission rate that I recommend the State of North Dakota use, basically the highest 3-hour and 24-hour actual rolling average based off of the CEM

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data or the allowable permitted rate in the State's permit. And also to tighten up on receptors, two-by-two kilometer grid. And, also, the use of the similarity theory of dispersion method versus the highest EPA-proposed Pasquill-Gifford dispersion coefficients.

MR. MENNELL: In your opinion, are those points that you just outlined consistent with EPA guidance?

MR. NOTAR: Yes.

MR. MENNELL: Thank you.

MR. BUNYAK: I guess I just want to add one more point to that. I think EPA does have discretion when it comes down -- like Mr. Long mentioned, if there are extenuating circumstances or if there is a basis to do differently, I think they have discretion to do that. I don't want to preempt EPA authority when it comes to that.

MR. HARMS: Bob Harms with Governor Hoeven's office. Excuse me. But I missed just the very beginning of each of your presentations. John, is it Notar?

MR. NOTAR: Yes.

MR. HARMS: You work for?

MR. NOTAR: U.S. National Park Service, Air

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Resources Division.

MR. HARMS: Okay. And John Bunyak?

MR. BUNYAK: I'm the same. Our office is located in Denver. We're a national office and we provide technical support to the parks in our regional offices throughout the country.

MR. HARMS: Okay. So both of you are employees of the National Park Service?

MR. BUNYAK: Yes.

MR. HARMS: Okay. I don't pretend to be an expert in this area, but tell me how the National Park Service, what role you play with respect to EPA's jurisdiction and oversight of the PSD program.

MR. BUNYAK: Well, I try to make the distinction that EPA has -- and the states are charged with protecting increments. The National --

MR. HARMS: An increment is part of the PSD program?

MR. BUNYAK: I'm sorry. That's right, the PSD program. But one other aspect of the PSD program is to preserve, protect, and enhance the air quality related values at national parks and wilderness areas, and under the Clean Air Act, the Federal Land Managers are given an affirmative responsibility to protect air quality related values

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from the adverse effects of air pollution. So we have a mandate right in the Clean Air Act to review permanent applications and to protect the sensitive resources of our Class I areas. And the Federal Land Manager by definition is the Secretary of the Department of Interior and that's been delegated down to the assistant secretary. He's the official Federal Land Manager, but the park superintendent or the refuge manager also have a shared responsibility when it comes to protecting resources. So it's kind of a dual responsibility there between the Federal Land Manager and the park superintendent or the refuge manager.

MR. HARMS: Okay. So to summarize then, EPA has oversight jurisdiction with respect to the PSD program overall and the National Park Service's responsibility is to provide input and certification, if you will, with respect to the AQRVs?

MR. BUNYAK: That's right. The Park Service isn't a regulatory authority. We don't have -- we don't issue permits. We provide comment and analyses, and when it comes in certain situations, as it indicates, where an increment is violated, then there's additional steps where the

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FLM must certify no adverse impacts before the permit can be issued. So there's a process in place there, but we're not a regulatory agency when it comes to issuing permits or anything like that.

MR. HARMS: Okay. John Notar, when you were testifying, you were evaluating the State's modeling proposal and you were speaking about -- well, you were concerned about if we were doing this with respect to health standards, there was some concern. But the PSD program and the AQRV evaluation that the Park Service provides is not a health-related --

MR. NOTAR: No, it's not. PSD is basically a growth standard.

MR. HARMS: Okay. You were also talking about the receptor averaging concept that the State was utilizing, and I was curious as to what your thoughts are, and I'm picturing in my mind the grid that you showed and your concern that the concept the State was using may show a lower incidence of emissions.

MR. NOTAR: Impacts.

MR. HARMS: Impacts. And by that you were suggesting that that was an incorrect process. On the flipside, I guess what I'm curious about is,

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then how would you propose the State or any entity do that? Because, for example, along the park the perimeter of the park has receptors along them and those receptors may be reading emission rates much higher than what would exist in the center of the park, and so there's a built-in bias, and so I'm curious as to how you would recommend anybody accommodate for that, what appears to be a higher than usual reading because of that bias at the perimeter.

MR. NOTAR: Okay. I guess it appears you are asking two questions, and I would be glad to answer both of them. One, is, are you talking about the density of the receptors when I recommended two-by-two?

MR. HARMS: No, I'm not.

MR. NOTAR: Okay. You're representing the averaging?

MR. HARMS: Yeah. I'm curious about how do you deal with what appears to be a bias of receptors located on a perimeter of a Class I area, or is there any solution to that?

MR. NOTAR: Well, actually, in the EPA guidelines and air quality model, like I said, the Part 51, Appendix W, has outlined, I believe in

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Chapter 9, the types -- the receptor placements in that do not average receptors over an area. Each receptor has its own individual point that needs to correspond to the highest second highest increment concentration. It's outlined in the guidelines, which is codified regulations.

MR. HARMS: Okay. So then what you're telling me then is, if a receptor, and picture in your mind the perimeter of Theodore Roosevelt National Park, and if one of the receptors has a reading of -- give me a number -- 10 and that's higher than what is within the park itself, then that simply is a fact that you would take as gospel, and apply according to the standard that you just described from Appendix W, and that would be the result?

MR. NOTAR: Well, look at it this way, you could --

MR. HARMS: Is that what you are suggesting, is what I just described?

MR. NOTAR: That, what, a certain location has, what, a concentration of 10, right?

MR. HARMS: Yeah.

MR. NOTAR: Okay. Why couldn't they put 20 receptors over here on the back side of the park, so

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to speak, and all of a sudden the concentration goes down to a half, .5, because you've got 20 zeros here and one 20 here -- or one 10 here, rather, so you would divide 10 by 21, which is slightly under .5.

MR. HARMS: I'm not arguing with you. I'm just trying to see if there's a way -- that bias seems apparent, and I'm wondering if there's another way that you might suggest that that be handled?

MR. BUNYAK: I think that's the nature of modeling and air quality assessments. I mean, you have these receptor locations and you try to predict what the concentration will be at those receptors, and if it's over the level, then that's a problem. You know, the whole concept of trying to determine compliance with increments and standards are based on points in space. It's not a regional-type of analysis.

MR. HARMS: Okay. And so theoretically, if we place 100 receptors and then applying the Appendix W as John Notar has suggested, then a second highest reading of one of those receptors would be one of the exceedences that we have to take into consideration for PSD compliance?

MR. BUNYAK: That's correct. The whole idea -- you're trying to find -- you're trying to

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find the highest and the second highest concentration, but there are some limitations. In theory instead of a two-kilometer by two-kilometer grid, if you really wanted to be safe, you could do a two-meter by two-meter receptor grid.

MR. HARMS: Sure. I just have one last question. Two. You spoke about the NSR, New Source Review Workshop Manual, that was described in a couple of instances and an IWAQM report. For some of us neither of those make a whole lot of sense. But would I be correct in saying those are two manuals that the federal agencies use in applying AQRVs and PSD programs, neither of which have been promulgated as a rule in the Code of Federal Regs; is that correct?

MR. BUNYAK: Well, I know the 1990 New Source Review Workshop Manual has not been promulgated and not been finalized, but it has been pretty much generally accepted that that's the guidance that everybody seems to use. Regarding IWAQM, I know --

MR. NOTAR: Regarding IWAQM, that is an official EPA document, EPA 454 series, December 1998, and it is referenced also in the pending of the Appendix W that EPA is trying to go final on

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right now. So it is going to be a guidance document on how to execute long-range transport models.

MR. HARMS: Okay. But are either of those promulgated as a rule under the Code of Federal Regs?

MR. NOTAR: Like I said, the IWAQM, once the latest version the EPA has proposed of the guidelines of air quality models, then it will be part of the Code of Federal Regulations. It will be referenced in there.

MR. HARMS: All right. Last question. I'm confused. How do you suggest -- tell us -- tell me in short order, how do you propose the State determine increment? The discussions that you were having here with Mr. Witham and your testimony I was lost. It sounds like you're saying the baseline doesn't make any difference, all you need to do is measure increment consumption. And I'm at a loss as to how do I measure something above that's increment without knowing or having some means of evaluating and determining what's in baseline?

MR. NOTAR: I think if you go back to what the State performed in 1999, you would be very close to achieving what you want. Just need, like I said, a little fine-tuning in terms of the number of

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receptors. I don't remember the exact particulars in terms of dispersion coefficient or the processing of the MET data, but the general concept of the 1999 analysis is far more in line with regulatory and the guidance put out by EPA on how to do a long-range transport analysis --

MR. HARMS: Tell us -- if you would tell me how to do that or tell us how to do that, how you propose to do that.

MR. BUNYAK: Well, maybe one thing might help. You used the term "measure" twice in your question, and if you try not to think of it as measuring an increment, because that's not what you're trying to do. You're trying to determine how much increment has been consumed by new source growth. And the way to do that is to model. You're not going to measure what the SO2 concentration is. You put the emissions and the stack parameters and all this other good stuff in this model and it spits out what the answer is. So it's a theoretical predictive tool that will tell you how much increment has been consumed. It's not a measured value where you are going to go out and stick out a monitor. You are not going to measure an increment consumption. It's all modeled. It's predictive. I

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don't know if that helps at all, but you mentioned measuring twice in your comments. That's why I -- I kind of got the impression you were thinking you were going to go out and measure how much increment has been consumed, and that's not the case. You are just going to stick in all those sources. Some of them are already built. Some of them are going to be built. And you stick in their emissions, their stack height, and their velocity and their stack diameter and all these parameters and this model will predict downwind concentration and you take that value and you compare to the allowable increment. So you don't really need to know what the current conditions are or what the background concentration is or what the baseline concentration is. All you need to know is how much new source growth -- how much increment consumption is taking place in combination with increment expansion and then you come up with the net value and that's a modeled number. It's not a measured number.

MR. HARMS: Okay. Thank you.

MR. BAHR: Did you understand that?

MR. HARMS: No, but that's the reason I asked the question.

MR. BAHR: I was more confused after the

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answer.

MR. BUNYAK: Sorry.

MR. BAHR: No offense. I have a lot of reading to do.

MR. SCHWINDT: Any other questions? Why don't we take a 15-minute break and come back again at 3:30. Thank you.

(A recess was taken from 3:15 p.m., to 3:30 p.m.)

MR. SCHWINDT: Okay. Next, we'll hear from John Dwyer with the Lignite Energy Council.

MR. DWYER: For the record, my name is John Dwyer, president of the Lignite Energy Council.

On behalf of the Lignite Energy Counsel, I'm pleased to have the opportunity to testify before the Department of Health in its proposed determination regarding the adequacy of the North Dakota State Implementation Plan to prevent significant deterioration. Air quality issues relating to this issue are extremely important to our region, our state, all its citizens and the jobs and low-cost, clean electricity provided by the lignite industry. Thus, I appreciate the time provided to our organization and our members who will be testifying individually.

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For the record, the Lignite Energy Council's membership includes the major producers of lignite, who together produce approximately 30 million tons annually; investor-owned utilities and rural electric cooperatives from a multi-state area who generate electricity from lignite, serving two million people in the upper Midwest region; and 240 contractor/supplier members providing goods and services to the lignite industry that in total represent 18,000 jobs, $1.5 billion in business volume and over $65 million in annual tax revenue.

Please note that we are not representing, nor should our comments be construed to represent those of our individual members who are commenting directly or otherwise participating in this prevention of significant deterioration hearing.

At the outset, let me emphasize that the Lignite Energy Council shares Governor John Hoeven's goals of preserving the existing lignite-generation facilities and the jobs they represent, as well as the State's efforts to grow the lignite industry through the Lignite Vision 21 Program. Furthermore, we believe these goals could be achieved by continuing to improve North Dakota's air quality and by meeting PSD policies advanced by the State of

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North Dakota.

Before I get into the specific issues identified in the DOH hearing notice, I want to emphasize that an overriding fact for the Department of Health, EPA, and the public to consider, as we hear the various parties testify, that North Dakota has the cleanest air in the country. Our state is recognized by third parties, such as the Corporation for Enterprise Development, of having the cleanest air. Even with our state's large coal-based electricity facilities, North Dakota's air quality continues to improve, and most importantly, we are one of only 15 states that meets EPA ambient air quality standards.

Some will argue that this good quality -- good air quality report card has nothing to do with PSD. That it's irrelevant. Well, if PSD doesn't have anything to do with air quality and keeping the good air quality we have, then there's over $650 million in pollution control technology that our industry alone has spent and that our State's consumers have paid for, that is unnecessary. We submit to you that our efforts to keep North Dakota clean are relevant, are very necessary and maintaining our good air quality is what this whole

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process is about.

If I could, I'd like to show you an overhead here. This is an -- actually a chart that I stole from the Department of Health. It's used in our teaching seminars, education seminars to try to explain what we're talking about when we talk about prevention of significant deterioration.

I think it's important in this hearing to put in context what we are talking about when we talk about Class I air quality standards. We are talking about a Class I annual SO2 standard that is 40 times more stringent than the acceptable health standard; a Class I 3-hour SO2 increment standard that is 50 times more stringent than the health standard, and a Class I 24-hour SO2 that is 73 times more stringent than the health standard. In brief, North Dakota does not just meet the health standards, it exceeds them many, many times. North Dakota has earned its clean state status.

So what is this hearing about? As you already heard here this morning and this afternoon, what some witnesses are talking about during this hearing is whether esoteric, complex air quality models that have not even been approved or certified in some cases, based on meteorological assumptions,

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some 30 to 40 different inputs, result or do not result in computer model predicted exceedences of these Class I increments.

To the hearing examiners I say this: Over the next three days, as you labor over suggested modeling assumptions, different approaches to technical analysis, and various legal interpretations, I ask that you keep two questions at the forefront of any recommendations you make. First, what is the air quality we enjoy in North Dakota and, second, what is the record of the Department of Health? I submit to EPA representatives here today, to the various special interest organizations, to industry representatives and to the public the following: First, we have the best air quality in the country and it continues to improve; and, two, the Department of Health is responsible for that outstanding record. Briefly, as a matter of sound and scientific public policy and as a matter of law, EPA should defer to the State in the administration of the PSD approved program.

Before leaving the subject of North Dakota's air quality, it is also important to briefly look at North Dakota's air quality from the

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federal government perspective other than the Environmental Protection Agency. What has the federal government, other than the EPA, said over the past years?

Specifically, as has been pointed out earlier, in 1982, 1984, and most recently in 1993, the Department of the Interior through the National Park Service determined that North Dakota sources have no adverse effect on air quality related values in North Dakota's Class I areas in Theodore Roosevelt National Park. Interior's findings concluded that there was no significant impact on visibility, no injury to sensitive species, no impairment of ecosystems, no impairment of the quality of visitors' experience, no diminishment of the national significance of the areas, and minimal impact on two sensitive species of lichen. Interior's 1993 certification included a finding that air quality in the areas is actually improved since 1984. And let me show you a couple other graphs, if I can, please.

Ambient monitoring of sulfur dioxides in Teddy Roosevelt National Park, North and South Units, where the Department of Health has shown significant improvement in the North Unit -- this is

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the North Unit -- since the mid 1980s when the certifications of no adverse impact were made and very low levels in the South one. This is the North Unit here and the stable levels that you see are also shown in the South Unit. The other thing that I'd like to point out is, that during the same time frame from the time that the certifications were made of no adverse impact, besides the monitoring showing that there's been a decrease or they're stable, this shows what the impact is from the total emissions, SO2 emissions in North Dakota, and also what the trend is in utility boiler emissions from the 1993 time frame, when the last certification was made, up into 2000.

Now, if I could comment on the specific issues that were noticed for the public to consider. The Lignite Energy Council supports the Department of Health's technical assessment and proposed determination indicating there are no violations of applicable PSD increments for sulfur dioxide and that the current North Dakota SIP is adequate to protect the applicable PSD increments and to prevent significant deterioration.

In commenting on the first issue raised in the notice of hearing, the Lignite Energy Council

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believes EPA's March 5th approach is not supportable from both legal and technical perspectives and that EPA should defer to North Dakota's administrative process since North Dakota has an EPA-approved PSD program. And my comments to EPA dated April 29th are attached for the record. We further contend that EPA's threatened SIP call and March 5th draft pose a fundamental challenge to North Dakota's authority to make vital decisions on economic growth and environmental protection. The Clean Air Act states that, and I quote, air pollution prevention and air pollution control at its source, are the primary responsibility of the states and local government, end of quote. The determination of how much deterioration is significant in areas that are already substantially clearer than required by health and welfare standards is ultimately a subjective and arbitrary determination that is essentially one of land use, best made by those affected by it.

Congress, EPA, and the courts have recognized that important discretionary prevention of significant deterioration determinations are the primary responsibility of state and local government. And as the U.S. Court of Appeals for

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the District of Columbia in the leading case on PSD program pointed out, subject only to the minimum requirements of the federal program, and I quote, growth-management decisions, such as management of increment consumption, were left by Congress for resolution by the states. And we had quite a discussion on that this morning. And, again, I'd just like to point out what the leading case on this issue has said.

I'd like to just point out that a state's exercise of its discretion in the matter of increment consumption is, at most, subject to EPA intervention only if the State has made a clearly erroneous legal determination, or if it is arbitrary and capricious.

On the second issue raised in the notice of hearing, we support the Department of Health in its determination to count emissions from varying sources only against the alternative increment established for such sources under Section 165 of the Clean Air Act. The Clean Air Act allows the permitting of sources that exceed the Class I increment if they obtain certification from the Federal Land Manager, the National Park Service in this case, that there is no adverse effect on air